

L9 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:123553 CAPLUS
DOCUMENT NUMBER: 136:167633
TITLE: Ferrocenyl boronate derivatization of chemical compounds undergoing mass spectrometry analysis
INVENTOR(S): Williams, John Dudley; Young, Mary K.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 42 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002019057	A1	20020214	US 2001-921988	20010806

PRIORITY APPLN. INFO.: US 2000-223035P P 20000804

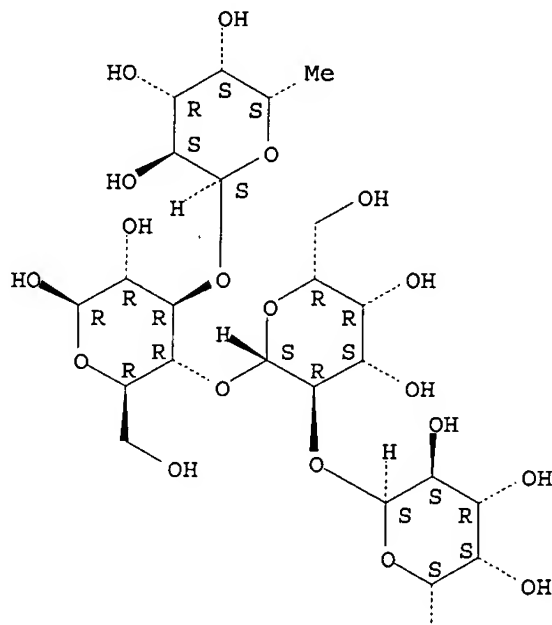
AB An improved mass spectrometry method comprises the anal. of ferrocenyl boronate derivs. of compds. of interest. Chem. derivatization with ferrocenyl boronate overcomes problems resolving small structural differences in a variety of biol. important compds., including carbohydrates, ultimately increasing the propensity of an analyte to ionize and provide quality fragmentation during successive rounds of electrospray MS. The resultant full scan spectra reflect large amts. of structural information.

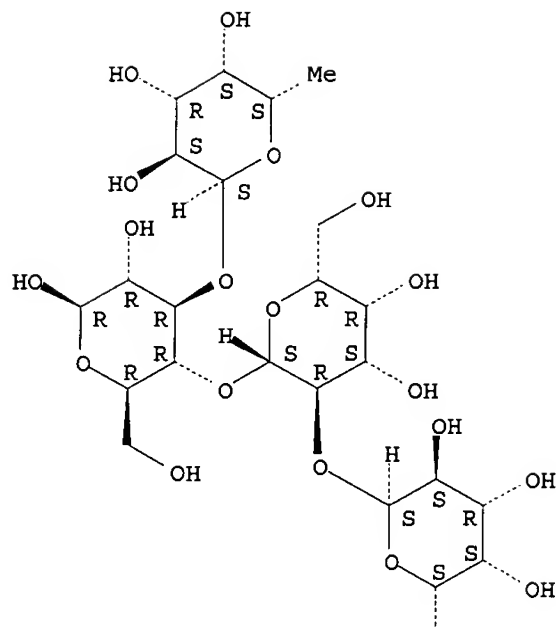
IT 34852-43-2
RL: ANT (Analyte); ANST (Analytical study)
(improved carbohydrate and estrogen structural detn. by electrospray tandem mass spectrometry using ferrocenyl boronate as derivatization agent)

RN 34852-43-2 CAPLUS
CN .beta.-D-Glucopyranose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





Me

L9 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:843831 CAPLUS

DOCUMENT NUMBER: 136:4799

TITLE: Production of fucosylated carbohydrates by enzymatic fucosylation synthesis of sugar nucleotides; and in situ regeneration of GDP-fucose

INVENTOR(S): Wong, Chi-huey; Ichikawa, Yoshitaka; Shen, Gwo-jenn; Liu, Kun-chin

PATENT ASSIGNEE(S): Scripps Research Insitute, USA

SOURCE: U.S., 45 pp., Cont.-in-part of U.S. Ser. No. 910,612, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 8

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6319695	B1	20011120	US 1992-961076	19921014
WO 9308205	A1	19930429	WO 1992-US8789	19921015
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
AU 9227854	A1	19930521	AU 1992-27854	19921015
AU 675209	B2	19970130		
JP 07500248	T2	19950112	JP 1992-507791	19921015

EP 642526	A1	19950315	EP 1992-921939	19921015
EP 642526	B1	19981223		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE				
HU 69791	A2	19950928	HU 1994-1072	19921015
AT 174925	E	19990115	AT 1992-921939	19921015
ES 2129458	T3	19990616	ES 1992-921939	19921015
RO 118132	B1	20030228	RO 1994-636	19921015
US 6518418	B1	20030211	US 1992-991182	19921210
FI 9401732	A	19940614	FI 1994-1732	19940414
NO 9401346	A	19940614	NO 1994-1346	19940414
US 2002068331	A1	20020606	US 2001-992680	20011119

PRIORITY APPLN. INFO.:

US 1991-777662	B2	19911015
US 1992-901260	B2	19920619
US 1992-910612	B2	19920708
US 1992-961076	A	19921014
WO 1992-US8789	A	19921015

OTHER SOURCE(S): CASREACT 136:4799

AB This invention contemplates improved methods of enzymic prodn. of carbohydrates esp. fucosylated carbohydrates. Improved syntheses of glycosyl 1- or 2-phosphates using both chem. and enzymic means are also contemplated. The phosphorylated glycosides are then used to produce sugar nucleotides that are in turn used as donor sugars for glycosylation of acceptor carbohydrates. Esp. preferred herein is the use of a disclosed method for fucosylation.

IT 141612-83-1P

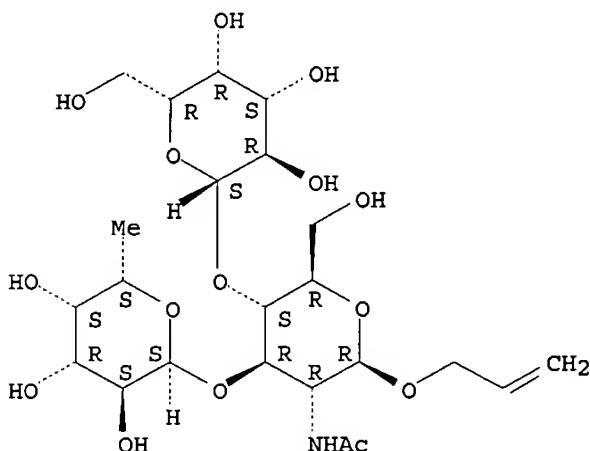
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(prodn. of fucosylated carbohydrates by enzymic fucosylation synthesis of sugar nucleotides; and in situ regeneration of GDP-fucose)

RN 141612-83-1 CAPLUS

CN .beta.-D-Glucopyranoside, 2-propenyl O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O- [.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:533660 CAPLUS

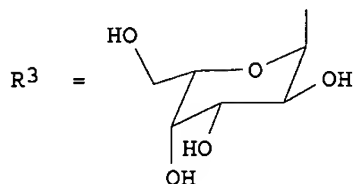
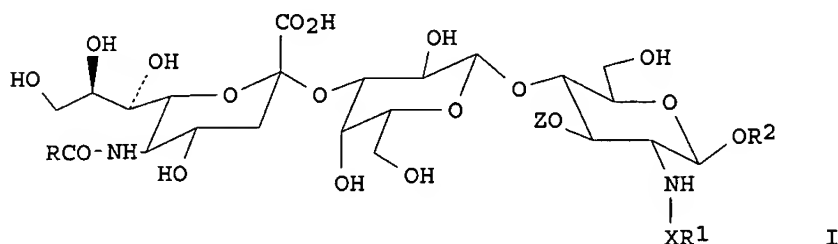
DOCUMENT NUMBER: 127:205814

TITLE: Preparation of sialyl-Lewisa and sialyl-Lewisx epitope analogs as E-selection receptors

INVENTOR(S): Oehrlein, Reinhold

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Oehrlein, Reinhold
 SOURCE: PCT Int. Appl., 107 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9728173	A1	19970807	WO 1997-EP222	19970117
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9715423	A1	19970822	AU 1997-15423	19970117
EP 886640	A1	19981230	EP 1997-901546	19970117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6169077	B1	20010102	US 1999-117482	19990211
PRIORITY APPLN. INFO.:			CH 1996-230	A 19960130
			WO 1997-EP222	W 19970117
OTHER SOURCE(S):		MARPAT 127:205814		
GI				



AB Sialyl-Lewisa and sialyl-Lewisx epitope analogs I (Z = .alpha.-pyranose; R1 = H, alkyl, alkenyl, cycloalkyl, heteroaryl, cycloaryl; R2 = alkyl, cycloalkyl; R3 = Me, hydroxymethyl; X = CO, CS, SO₂, acyl, thiocarbonyl) in which the naturally occurring N-acetyl group of the N-acetylglucosamine monomer is replaced by various aliph. or arom. substituents and the L-fucose naturally present is replaced by various naturally occurring or non-naturally occurring sugars were prep'd. as E-selectin receptors. Thus, I (R = Me, R1 = 4-hydroxy-3-methoxyphenyl, X = CO, R2 = (CH₂)₈CO₂Me, Z = R3) was prep'd. and tested as E-selectin receptor (relative IC₅₀ to an internal control is 0.085).

IT 194603-42-4P 194603-58-2P

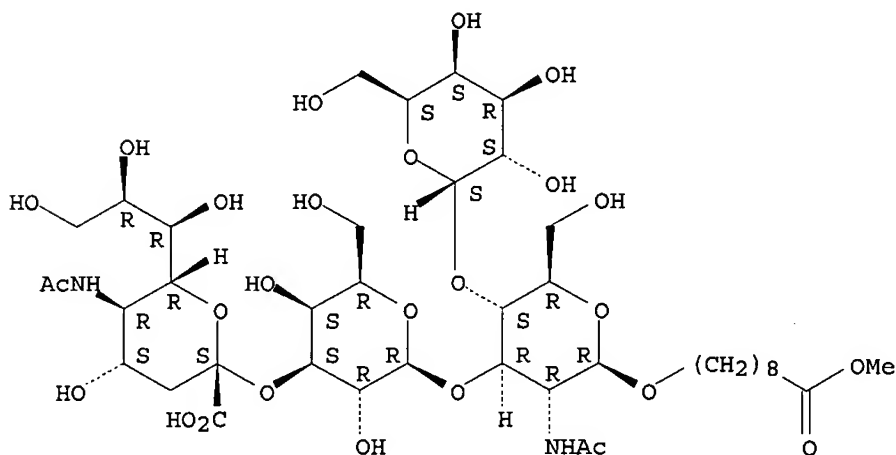
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of sialyl-Lewisa and sialyl-Lewisx epitope analogs as
E-selection receptors)

RN 194603-42-4 CAPLUS

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-
D-galactopyranosyl-(1.fwdarw.3)-O-[,alpha.-L-galactopyranosyl-
(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-,
1-methyl ester (9CI) (CA INDEX NAME)

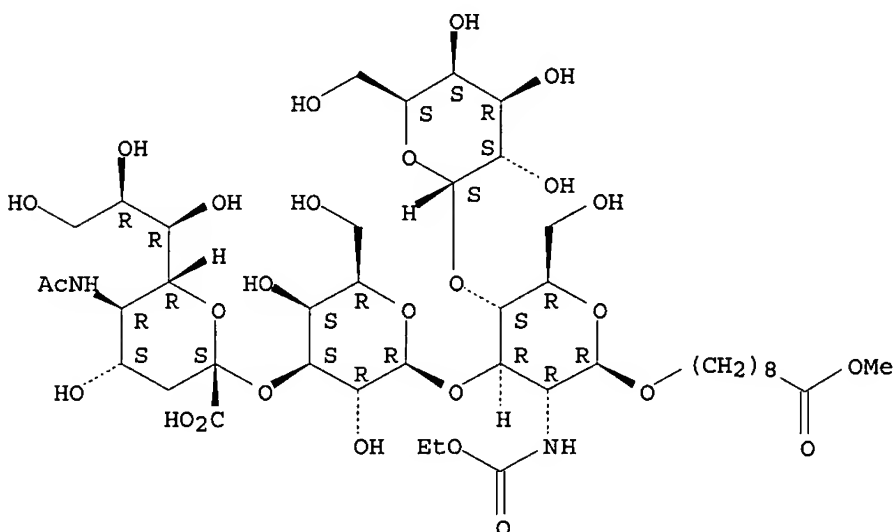
Absolute stereochemistry.



RN 194603-58-2 CAPLUS

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-
D-galactopyranosyl-(1.fwdarw.3)-O-[,alpha.-L-galactopyranosyl-
(1.fwdarw.4)]-2-deoxy-2-[(ethoxycarbonyl)amino]-.beta.-D-
glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 194603-44-6P 194603-61-7P 194603-78-6P

194603-91-3P 194603-95-7P

RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation)

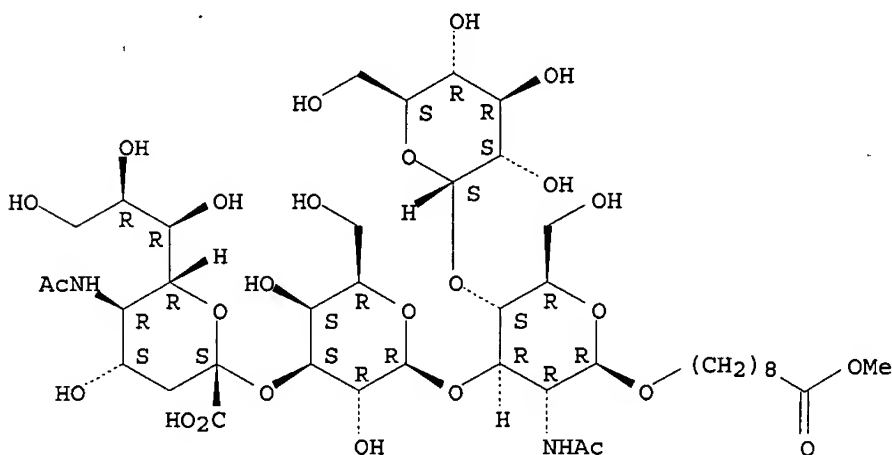
(prepn. of sialyl-Lewisa and sialyl-Lewisx epitope analogs as

E-selection receptors)

RN 194603-44-6 CAPLUS

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-glucopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

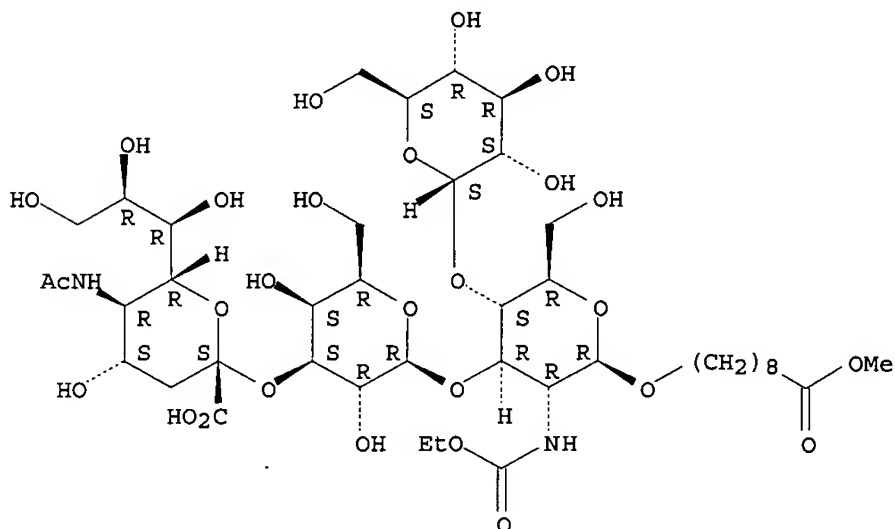
Absolute stereochemistry.



RN 194603-61-7 CAPLUS

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-glucopyranosyl-(1.fwdarw.4)]-2-deoxy-2-[(ethoxycarbonyl)amino]-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

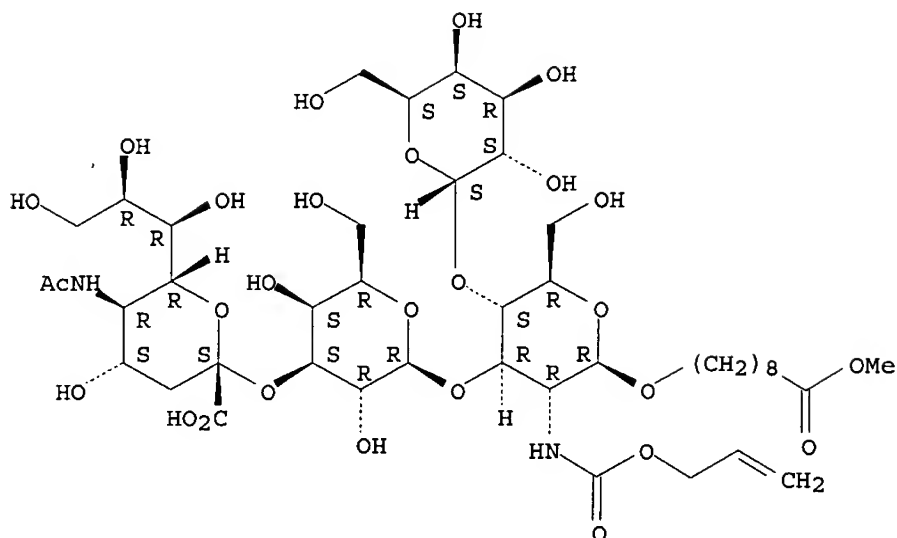
Absolute stereochemistry.



RN 194603-78-6 CAPLUS

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-deoxy-2-[[2-propenyloxy)carbonyl]amino]-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

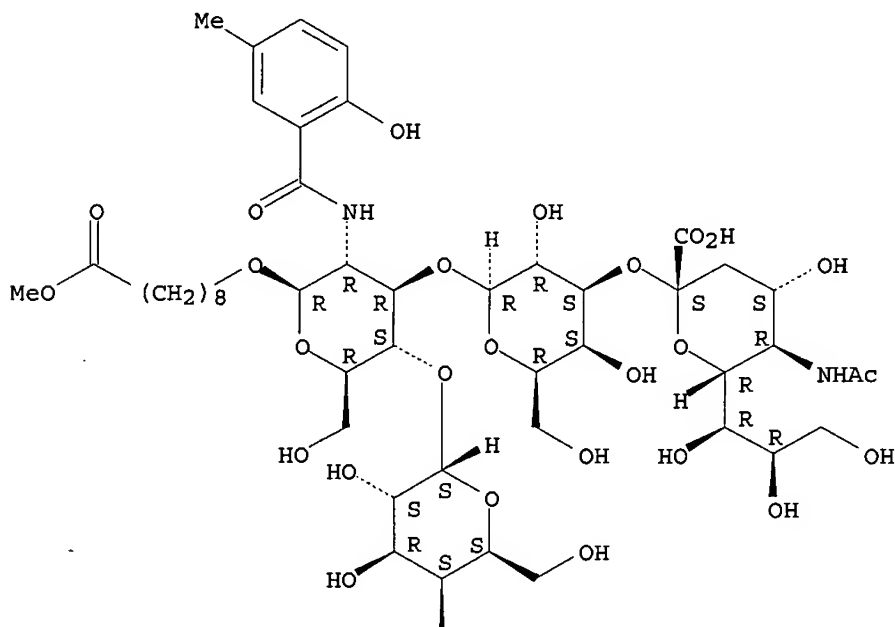


RN 194603-91-3 CAPLUS

CN Nonanoic acid, 9-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-deoxy-2-[(2-hydroxy-5-methylbenzoyl)amino]-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

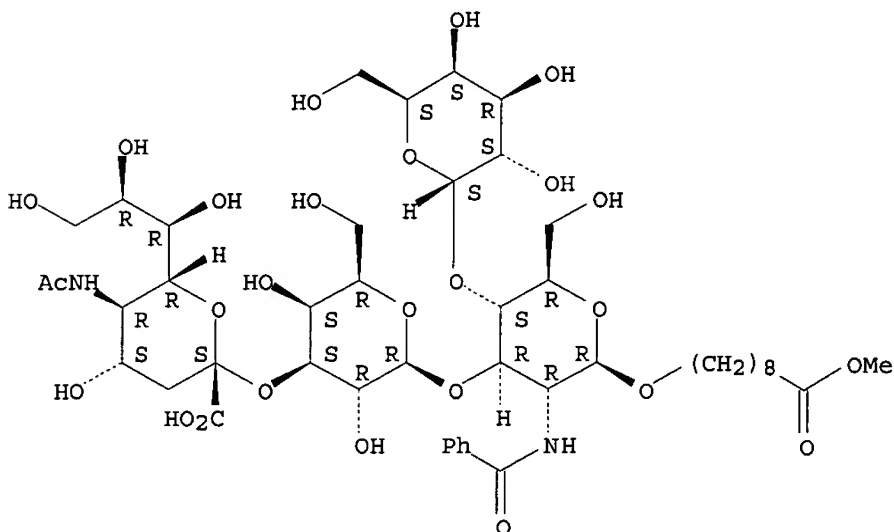
PAGE 1-A





RN 194603-95-7 CAPLUS
 CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[[.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-(benzoylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:648181 CAPLUS

DOCUMENT NUMBER: 119:248181

TITLE: Production of fucosylated carbohydrates by enzymatic fucosylation synthesis of sugar nucleotides and in situ regeneration of GDP-fucose

INVENTOR(S): Wong, Chi Huey; Ichikawa, Yoshitaka; Shen, Gwo Jenn; Liu, Kun Chin

PATENT ASSIGNEE(S): Scripps Research Institute, USA

SOURCE: PCT Int. Appl., 141 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 8

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9308205	A1	19930429	WO 1992-US8789	19921015
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
US 6319695	B1	20011120	US 1992-961076	19921014
AU 9227854	A1	19930521	AU 1992-27854	19921015
AU 675209	B2	19970130		
JP 07500248	T2	19950112	JP 1992-507791	19921015
EP 642526	A1	19950315	EP 1992-921939	19921015

EP 642526 B1 19981223
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE
 RU 2125092 C1 19990120 RU 1994-26248 19921015
 RO 118132 B1 20030228 RO 1994-636 19921015
 FI 9401732 A 19940614 FI 1994-1732 19940414
 NO 9401346 A 19940614 NO 1994-1346 19940414
 PRIORITY APPLN. INFO.: US 1991-777662 A 19911015
 US 1992-901260 A 19920619
 US 1992-910612 A 19920708
 US 1992-961076 A 19921014
 WO 1992-US8789 A 19921015

OTHER SOURCE(S): MARPAT 119:248181

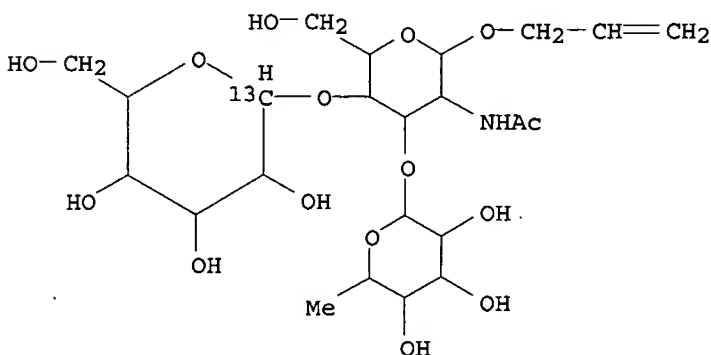
AB Improved methods for enzymic prepn. of carbohydrates, esp. fucosylated carbohydrates, are described. More than one glycosyltransferase is used and only catalytic amts. of nucleotides are employed. Thus, a buffered soln. of fucosyl-1-phosphate, GDP, PEP, pyruvate kinase, sialyl-LacNAc.beta.-O-(CH₂)₆CO₂Me, .alpha.-1,3-fucosyltransferase, inorg. pyrophosphatase, and GDP-fucose pyrophosphorylase was incubated at room temp. for 60 h to prep. sialyl Lewis x in .apprx.30% yield. Improved chem. and enzymic synthesis of glycosyl-1- or 2-phosphates, which are used to prep. sugar nucleotides useful as donor sugars for glycosylation of acceptor carbohydrates are also disclosed. In one approach, benzoyleated fucosyl bromide was reacted with dibenzylphosphate to give 95% yield of product. The benzoyl protective group improved stability of the fucosyl deriv. and the stereoselectivity of the glycosylation reaction. In a 2nd approach, 2,3,4-tri-O-acetylfucose was phosphinated with dibenzyl N,N-diethylphosphoroamidite in the presence of tetrazole to give 79% yield of product which was oxidized to the phosphate and deprotected. A new method for prepg. 2- or 3-halo- mono- and oligosaccharides from the corresponding glycals through the use of chloroperoxidase, H₂O₂, and halide ion is presented.

IT 144226-67-5P

RL: PREP (Preparation)
 (prepn. of, multiple enzyme-catalyzed)

RN 144226-67-5 CAPLUS

CN .beta.-D-Glucopyranoside, 2-propenyl O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-1-13C-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)



L9 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:605781 CAPLUS

DOCUMENT NUMBER: 119:205781

TITLE: Pseudomonas strain for production of polysaccharides by fermentation

INVENTOR(S): Fontaine, Thierry; Fournet, Bernard; Planard, Marie France

PATENT ASSIGNEE(S): Elf Sanofi, Fr.

SOURCE: Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 534855	A1	19930331	EP 1992-402626	19920924
EP 534855	B1	19970423		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
FR 2681601	A1	19930326	FR 1991-11823	19910925
FR 2681601	B1	19931224		
CA 2079018	AA	19930326	CA 1992-2079018	19920924
JP 05227902	A2	19930907	JP 1992-254818	19920924
JP 2856992	B2	19990210		
US 5455343	A	19951003	US 1992-949263	19920924
AT 152131	E	19970515	AT 1992-402626	19920924
ES 2101819	T3	19970716	ES 1992-402626	19920924

PRIORITY APPLN. INFO.: FR 1991-11823 19910925

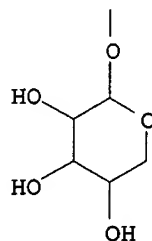
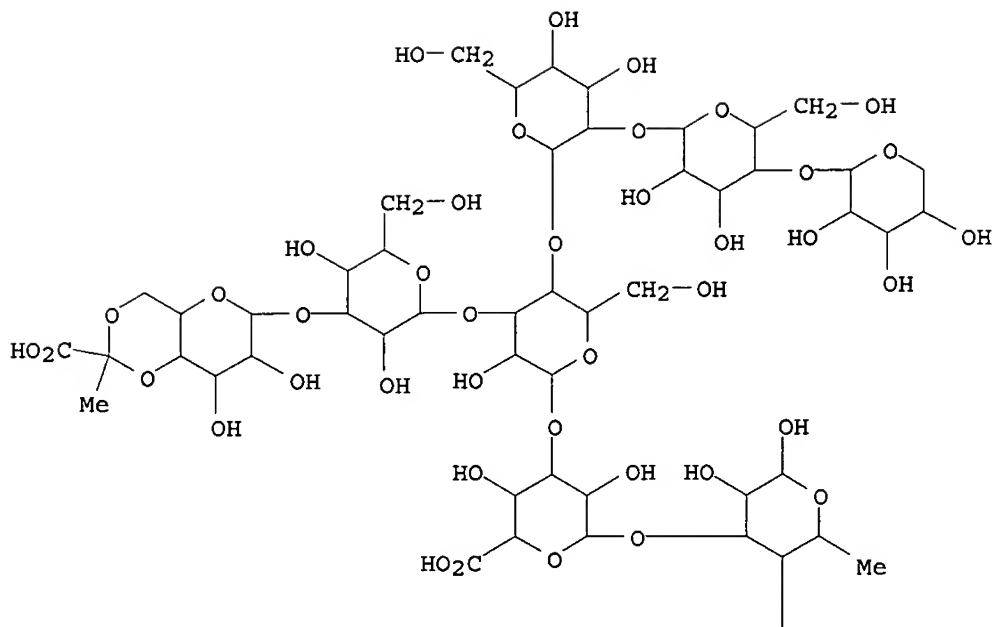
AB Polysaccharides contg. D-mannose, D-glucose, D-galactose, D-glucuronic acid, D-xylose, L-lyxose, and L-fucose units 2, 2, 1, 1, 1, 1, and 1, resp., useful as thickening and gelation agents, are prepd. by fermn. using a Pseudomonas strain (CNCM no. 1-1145). Fermn. of a glucose-soy flour mixt. at pH 7 and 28.degree. for 50 h gave the above polysaccharide, an 0.5, 0.2, and 0.075% aq. soln. of which had viscosity (20.degree.) 1200, 280, and 62 mPa, resp., or 1640, 350, and 70, resp., in the presence of KCl (10 g/L).

IT 150731-84-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (manuf. of, as gelation and thickening agents, by Pseudomonas fermn.)

RN 150731-84-3 CAPLUS

CN .alpha.-L-Galactopyranose, O-4,6-O-(1-carboxyethylidene)-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[O-.beta.-D-xylopyranosyl-(1.fwdarw.4)-O-.beta.-D-mannopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.4)]-O-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.alpha.-D-glucopyranuronosyl-(1.fwdarw.3)-O-[.beta.-D-lyxopyranosyl-(1.fwdarw.4)]-6-deoxy- (9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 19:07:27 ON 12 JUN 2003)

FILE 'REGISTRY' ENTERED AT 19:07:37 ON 12 JUN 2003

L1 STRUCTURE UPLOADED

L2 27 S L1 SSS SAM

L3 1157 S L1 SSS FULL

FILE 'CAPLUS, USPATFULL, CA, CAOLD' ENTERED AT 19:10:54 ON 12 JUN 2003

L4 1830 S L3

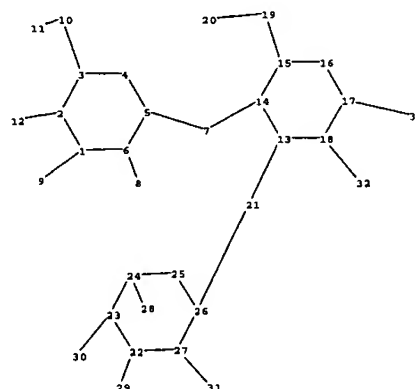
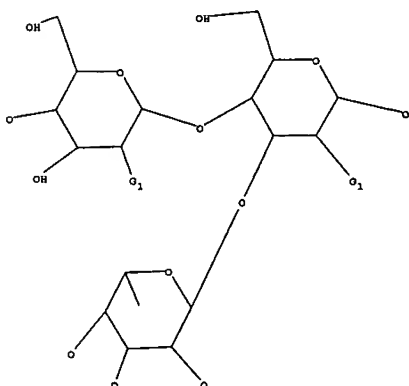
L5 936 DUP REM L4 (894 DUPLICATES REMOVED)

L6 63 S L5 AND L-FUCOSE

L7 109 S L5 AND ?FUCOSYL

L8 25 S L6 AND GLUCOSE

L9 19 S L8 AND GALACTOSE



chain nodes :

7 8 9 10 11 12 19 20 21 28 29 30 31 32 33

ring nodes :

1 2 3 4 5 6 13 14 15 16 17 18 22 23 24 25 26 27

chain bonds :

1-9 2-12 3-10 5-7 6-8 7-14 10-11 13-21 15-19 17-33 18-32 19-20 21-26 22-29
23-30 24-28 27-31

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 13-14 13-18 14-15 15-16 16-17 17-18 22-23 22-27 23-24
24-25 25-26 26-27

exact/norm bonds :

1-2 1-6 1-9 2-3 2-12 3-4 4-5 5-6 5-7 6-8 7-14 10-11 13-14 13-18 13-21 14-15
15-16 16-17 17-18 17-33 18-32 19-20 21-26 22-23 22-27 22-29 23-24 23-30 24-25
25-26 26-27 27-31

exact bonds :

3-10 15-19 24-28

G1:O,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS
20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:CLASS
29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS

L9 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1990:627427 CAPLUS

DOCUMENT NUMBER: 113:227427

TITLE: The use of polyacrylamide-gel electrophoresis for the high-resolution separation of reducing saccharides labeled with the fluorophore 8-aminonaphthalene-1,3,6-trisulfonic acid. Detection of picomolar quantities by an imaging system based on a cooled charge-coupled device

AUTHOR(S): Jackson, Peter

CORPORATE SOURCE: Innovation Cent., Astromed Ltd., Cambridge, CB4 4GS, UK

SOURCE: Biochemical Journal (1990), 270(3), 705-13

CODEN: BIJOAK; ISSN: 0306-3275

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Various monosaccharides, oligosaccharides, and small polysaccharides were labeled covalently at their reducing end groups with the fluorophore 8-aminonaphthalene-1,3,6-trisulfonic acid (ANTS), and the resulting fluorescent derivs. were sepd. by high-resoln. PAGE. The electrophoretic mobilities of the labeled saccharides are related largely to the compds.' Mr values, but they are also influenced by the individual chem. structures of the saccharides. Various positional isomers and some epimers, for instance galactose and glucose, were resolved. Oligosaccharide and small polysaccharide derivs., prepd. from an enzymic digest of starch, each differing in size by a single hexose residue and with a range of ds.p. from 2 to 26, were all resolved in a single gel. The method was relatively rapid and simple to perform. It enabled multiple samples to be analyzed in parallel with high sensitivity. The fluorescent-labeling procedure was virtually quant. As little as 1 pmol of ANTS-labeled saccharide was detected photog. when the gels were illuminated by UV light. When the gels were viewed using an imaging system based on a cooled charge-coupled device, as little as 0.2 pmol was detected. The method may be useful for the structural anal. of the carbohydrate moieties of glycoconjugates and other naturally occurring oligosaccharides.

IT 25541-09-7

RL: ANT (Analyte); ANST (Analytical study)
(anal. of, by PAGE with fluorometric detection,
aminonaphthalenetrisulfonic acid in)

RN 25541-09-7 CAPLUS

CN D-Glucose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O- [.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



AB The sugar-specific binding of N-dansylgalactosamine to winged bean agglutinin (WBA) II ($n = 2$; $K_{\text{alpha}} = 5.6 \times 10^3 \text{ M}^{-1}$; $\Delta H = -21 \text{ kJ} \cdot \text{mol}^{-1}$; $\Delta S = -21.3 \text{ J} \cdot \text{mol}^{-1} \cdot \text{K}^{-1}$) was utilized in substitution titrations for evaluating the association constants for the interaction of sugars with the lectin. An axial hydroxyl at C-4 and equatorial hydroxyls at C-3 and C-6 as in D-galactose configuration are crucial for binding. Both axial and equatorial hydroxyls are tolerated at C-2. Conformationally akin disaccharides such as lactose, N-acetyllactosamine, Gal β -1-3GlcNAc, and Gal β -1-3GalNAc show similar affinities. 2'-Fucosyllactose and H-disaccharide display 146 and 13 times stronger affinity over lactose and galactose, yet fucose by itself is devoid of activity. An interesting feature, noted for the first time, in protein-sugar interactions is the positive entropy change for the binding of 2'-fucosyllactose, suggesting that nonpolar interactions play an important role in stabilization of the lectin-sugar complex. 3-Fucosyllactose, lactodifucotetraose, lacto-N-fucopentaose II and III are inactive, whereas lacto-N-fucopentaose I has 14-fold lower affinity as compared with 2'-fucosyllactose. Conformational analysis indicates that the substitution at subterminal glucose or GlcNAc by L-fucose in either α -1-3 or α -1-4 linkage leads to its projection so as to sterically hinder the access of 3'-fucosyllactose, lactodifucotetraose, and lacto-N-fucopentaoses II and III to the binding site of winged bean agglutinin II. Similarly the projection of α -1-3 linked Gal/GalNAc also leads to steric hindrance and hence prevents the binding of blood group A and B reactive sugars. Considering its unique specificity, winged bean agglutinin II should be useful in the isolation and characterization of terminally monofucosylated H-reactive oligosaccharides from those that are difucosylated or

internally fucosylated.

IT 25541-09-7 96656-34-7

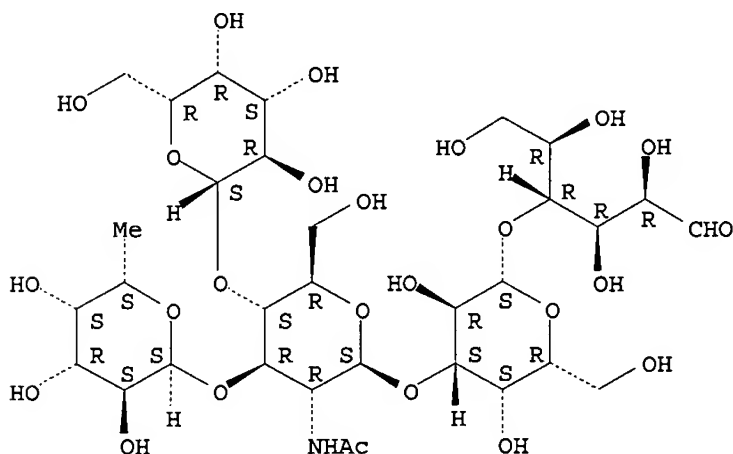
RL: BIOL (Biological study)

(agglutinin of winged bean binding of, thermodyn. anal. of, structure in relation to)

RN 25541-09-7 CAPLUS

CN D-Glucose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-(9CI) (CA INDEX NAME)

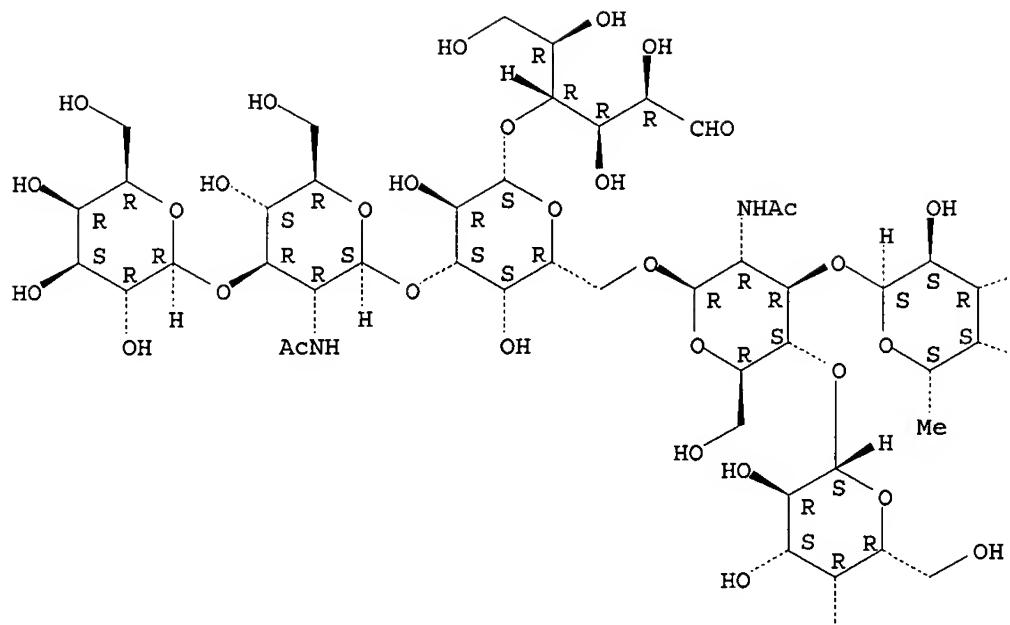
Absolute stereochemistry. Rotation (-).



RN 96656-34-7 CAPLUS

CN D-Glucose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-[O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



OH

OH

OH

L9 ANSWER 8 OF 19 USPATFULL

ACCESSION NUMBER: 2002:67364 USPATFULL

TITLE: Synthesis of glycoconjugates of the lewis y epitope and uses thereof

INVENTOR(S): Danishefsky, Samuel J., Englewood, NJ, UNITED STATES
Behar, Victor, Las Vegas, NV, UNITED STATES
Lloyd, Kenneth O., New York, NY, UNITED STATES

PATENT ASSIGNEE(S): The Trustees of Columbia University, New York, NY (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002038017	A1	20020328
APPLICATION INFO.:	US 2001-977185	A1	20011012 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-506251, filed on 24 Jul 1995, GRANTED, Pat. No. US 6303120		
	Continuation-in-part of Ser. No. US 1995-430355, filed on 28 Apr 1995, GRANTED, Pat. No. US 5708163		
	Continuation-in-part of Ser. No. US 1994-213053, filed on 15 Mar 1994, GRANTED, Pat. No. US 5543505		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	John P. White, Cooper & Dunham LLP, 1185 Avenue of the Americas, New York, NY, 10036		
NUMBER OF CLAIMS:	48		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	42 Drawing Page(s)		
LINE COUNT:	3365		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a method of synthesizing an allyl pentasaccharide having the structure: ##STR1##

as well as related oligosaccharide ceramides and other glycoconjugates useful as vaccines for inducing antibodies to epithelial cancer cells in an adjuvant therapy therefor, and in a method for preventing recurrence of epithelial cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

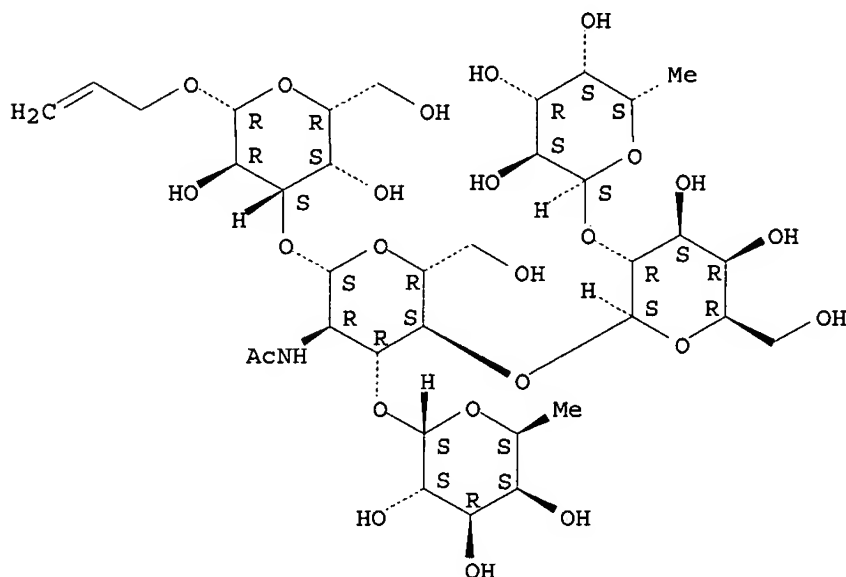
IT 163228-29-3P

(prepn. of synthetic carbohydrates which bind to Helicobacter pylori for use as drugs)

RN 163228-29-3 USPATFULL

CN .beta.-D-Galactopyranoside, 2-propenyl O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



ACCESSION NUMBER: 2001:109878 USPATFULL
 TITLE: Method for the production of sialylated oligosaccharides
 INVENTOR(S): Palcic, Monica Marija, Edmonton, Canada
 Sujino, Keiko, Edmonton, Canada

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001007760	A1	20010712
APPLICATION INFO.:	US 2001-795943	A1	20010227 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1998-146285, filed on 3 Sep 1998, GRANTED, Pat. No. US 6194178		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Gerald F. Swiss, Esq., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box 1404, Alexandria, VA, 22313-1404		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1012		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are methods for the enzymatic synthesis of .alpha.-sialylated oligosaccharide glycosides. Specifically, in the disclosed methods, .alpha.2,3-sialyltransferase is used to transfer an analogue of sialic acid, employed as its CMP-nucleotide derivative, to the non-reducing sugar terminus of an oligosaccharide having a fucosyl group in the penultimate saccharide unit to the non-reducing sugar terminus. The analogue of sialic acid and the oligosaccharide employed in this method are selected to be compatible with the sialyltransferase employed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

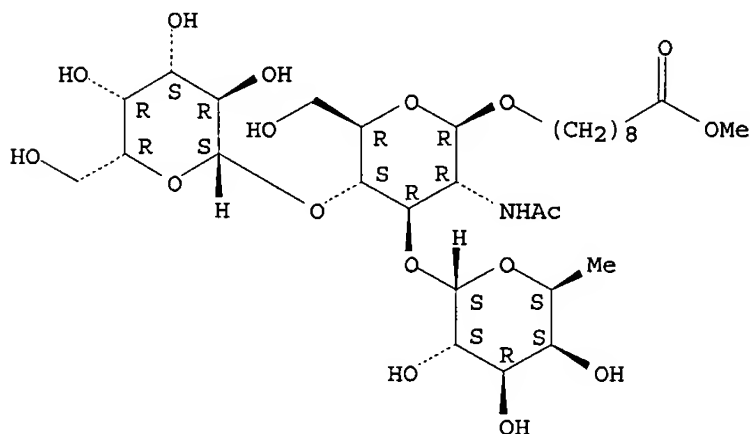
IT 82993-39-3

(prodn. of sialylated oligosaccharides)

RN 82993-39-3 USPATFULL

CN Nonanoic acid, 9-[[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 10 OF 19 USPATFULL

ACCESSION NUMBER: 2001:29331 USPATFULL
 TITLE: Method for the production of sialylated oligosaccharides
 INVENTOR(S): Palcic, Monica Marija, Edmonton, Canada
 Sujino, Keiko, Edmonton, Canada

PATENT ASSIGNEE(S): Synsorb Biotech Inc., Calgary, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6194178	B1	20010227
APPLICATION INFO.:	US 1998-146285		19980903 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Prats, Francisco		
LEGAL REPRESENTATIVE:	Burns, Doane, Swecker & Mathis, LLP		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1181		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are methods for the enzymatic synthesis of .alpha.-sialylated oligosaccharide glycosides. Specifically, in the disclosed methods, .alpha.2,3-sialyltransferase is used to transfer an analogue of sialic acid, employed as its CMP-nucleotide derivative, to the non-reducing sugar terminus of an oligosaccharide having a fucosyl group in the penultimate saccharide unit to the non-reducing sugar terminus. The analogue of sialic acid and the oligosaccharide employed in this method are selected to be compatible with the sialyltransferase employed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

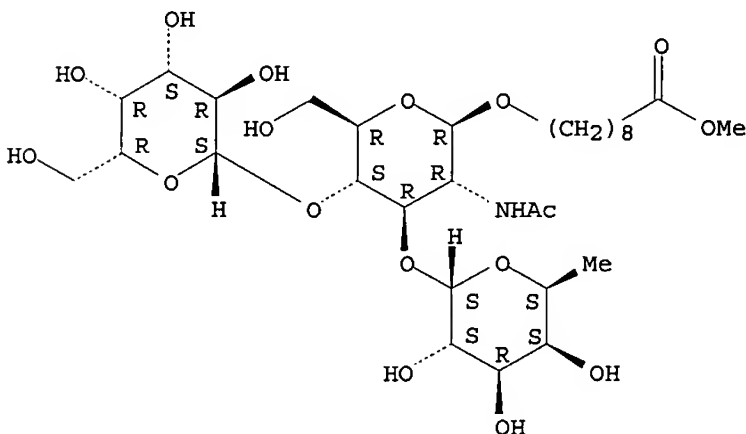
IT 82993-39-3

(prodn. of sialylated oligosaccharides)

RN 82993-39-3 USPATFULL

CN Nonanoic acid, 9-[[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 11 OF 19 USPATFULL

ACCESSION NUMBER: 2001:1764 USPATFULL

TITLE: Sialyl-Lewisx and sialyl-Lewisx epitope analogues
INVENTOR(S): Oehrlein, Reinhold, Rheinfelden, Germany, Federal Republic of

PATENT ASSIGNEE(S): GlycoTech Corp., Rockville, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6169077	B1	20010102

	WO 9728173	19970807
APPLICATION INFO.:	US 1999-117482	19990211 (9)
	WO 1997-EP222	19970117
		19990211 PCT 371 date
		19990211 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	CH 1996-230	19960130
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Fonda, Kathleen K.	
LEGAL REPRESENTATIVE:	Seed Intellectual Property Law Group PLLC	
NUMBER OF CLAIMS:	53	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3107	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Sialyl-Lewis^{sup.x} and sialyl-Lewis^{sup.a} epitope analogues in which the naturally occurring N-acetyl group of the N-acetylglucosamine monomer is replaced by various aliphatic or aromatic substituents and the L-fucose naturally present is replaced by various naturally occurring or non-naturally occurring sugars.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

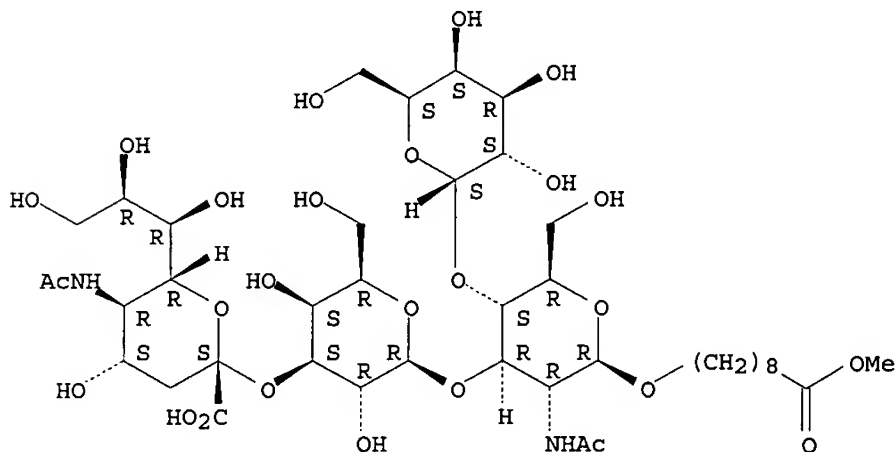
IT 194603-42-4P 194603-58-2P

(prepn. of sialyl-Lewis^a and sialyl-Lewis^x epitope analogs as E-selection receptors)

RN 194603-42-4 USPATFULL

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

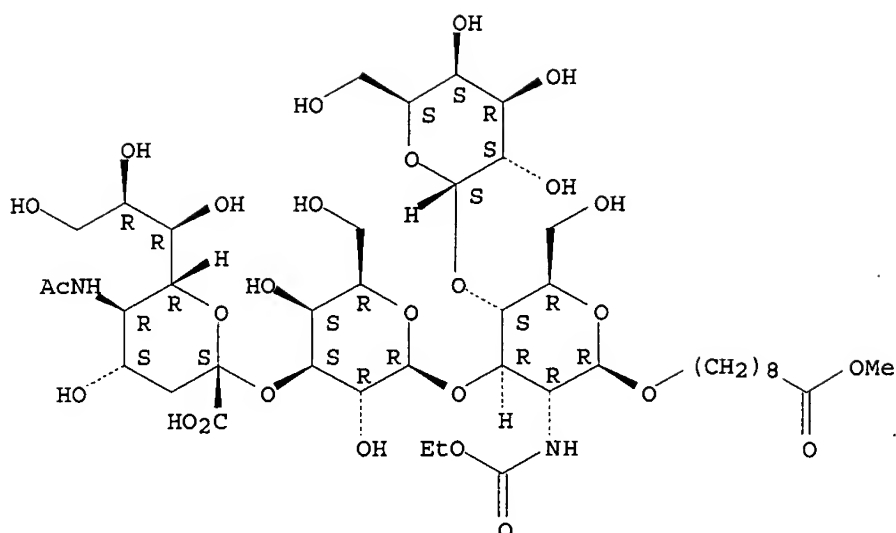
Absolute stereochemistry.



RN 194603-58-2 USPATFULL

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-deoxy-2-[(ethoxycarbonyl)amino]-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 194603-44-6P 194603-61-7P 194603-78-6P

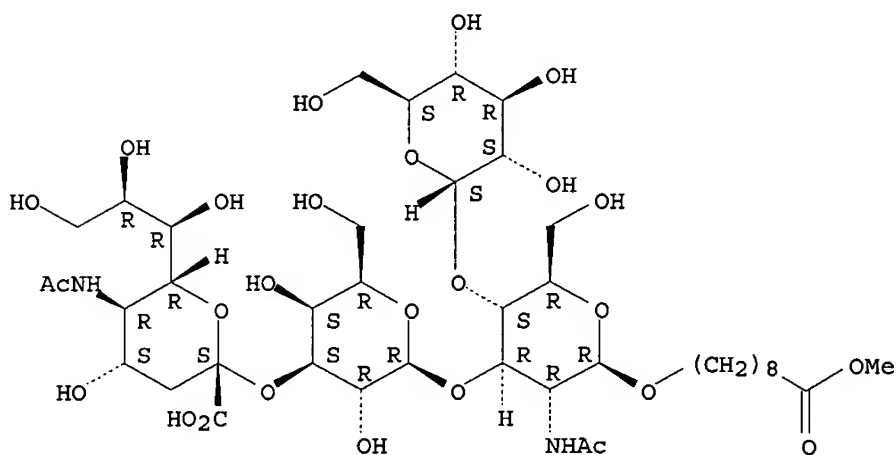
194603-91-3P 194603-95-7P

(prepn. of sialyl-Lewis_x and sialyl-Lewis_x epitope analogs as
E-selection receptors)

RN 194603-44-6 USPATFULL

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-
D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-glucopyranosyl-
(1.fwdarw.4)]-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-,
1-methyl ester (9CI) (CA INDEX NAME)

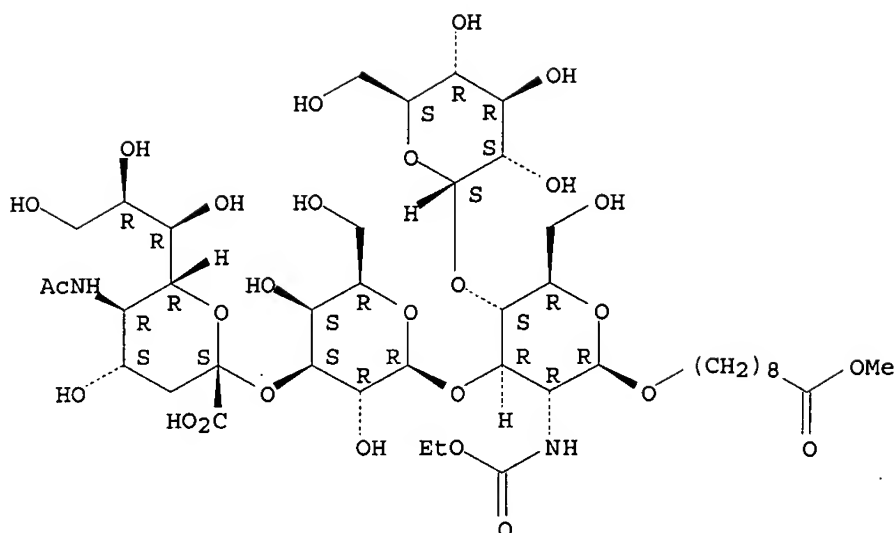
Absolute stereochemistry.



RN 194603-61-7 USPATFULL

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-
D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-glucopyranosyl-
(1.fwdarw.4)]-2-(ethoxycarbonyl)amino]-.beta.-D-
glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

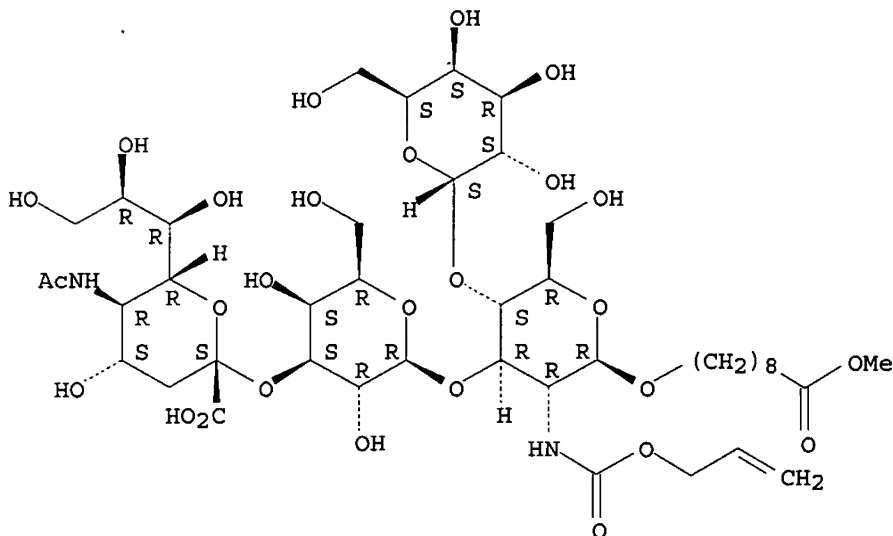
Absolute stereochemistry.



RN 194603-78-6 USPATFULL

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-deoxy-2-[[2-propenyloxy)carbonyl]amino]-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

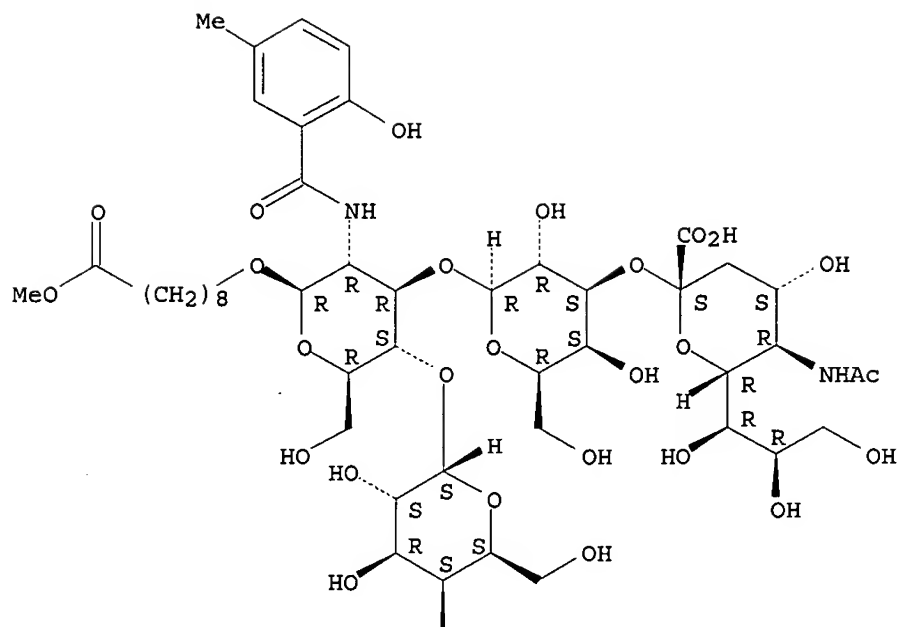
Absolute stereochemistry.



RN 194603-91-3 USPATFULL

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-deoxy-2-[[2-hydroxy-5-methylbenzoyl)amino]-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

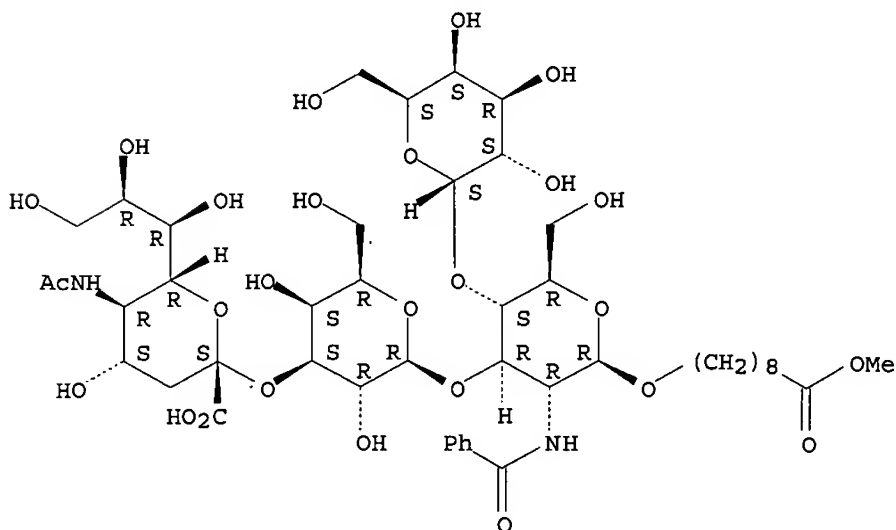
Absolute stereochemistry.



RN 194603-95-7 USPATFULL

CN Nonanoic acid, 9-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.alpha.-L-galactopyranosyl-(1.fwdarw.4)]-2-(benzoylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]-, 1-methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 12 OF 19 USPATFULL

ACCESSION NUMBER: 2000:77211 USPATFULL

TITLE: Method of producing derivatives of Glc-.beta.
1-4Glc-N-acetyl

INVENTOR(S): Nilsson, Kurt G. I., Lund, Sweden

PATENT ASSIGNEE(S): Bioflexin AB, Lund, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077695		20000620
	WO 9703206		19970130
APPLICATION INFO.:	US 1998-981715		19980616 (8)
	WO 1995-IB561		19950713
			19980616 PCT 371 date
			19980616 PCT 102(e) date

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Prouty, Rebecca E.

LEGAL REPRESENTATIVE: Smith Gambrell & Russell, LLP.

NUMBER OF CLAIMS: 24

EXEMPLARY CLAIM: 1

LINE COUNT: 751

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a method of producing a compound which contains the Glc.beta.1-4GlcN structure involving reacting at least one donor substance Glc.beta.OR where R is an organic group, and at least one acceptor substance which is a glucopyranosamino derivative having the formula GlcNR"-R'", wherein NR" is an azido, 2-N-acetyl-, 2-N-phtalimido, or an organic group bound to the 2-N-group of glucosamine, wherein R'" is a glycosidically bound fluoro or is an O-, C-, N- or S-glycosidically bound aliphatic or aromatic compound, with the optional proviso that if NR" is NHAc then R'" is not OH and if NR" is not NHAc then R'" may be OH, in the presence of Bullera singularis or an E.C. group 3.2 glycosidase of essentially the same structure as an E.C. group 3.2 glucosidase obtained from Bullera singularis to form the Glc.beta.1-4GlcN derivative; and optionally isolating the compound which contains the Glc.beta.1-4GlcN structure.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

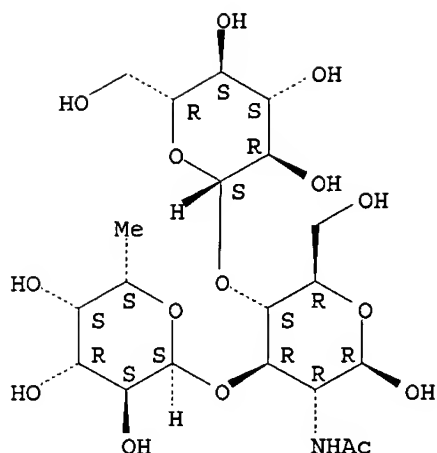
IT 186964-86-3P

(producing derivs. of .beta.-D-glucosyl-1,4-N-acetyl-.beta.-D-glucose)

RN 186964-86-3 USPATFULL

CN .beta.-D-Glucopyranose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 13 OF 19 USPATFULL

ACCESSION NUMBER: 2000:31540 USPATFULL

TITLE: Methods for preparing carbohydrate-containing hydrophilic polymers

INVENTOR(S): Stahl, Wilhelm, Frankfurt am Main, Germany, Federal Republic of
 Ahlers, Michael, Mainz, Germany, Federal Republic of
 Walch, Axel, Frankfurt am Main, Germany, Federal Republic of
 Bartnik, Eckhart, Wiesbaden, Germany, Federal Republic of
 Kretzschmar, Gerhard, Eschborn, Germany, Federal Republic of
 Grabley, Susanne, Koenigstein, Germany, Federal Republic of
 Schleyerbach, Rudolf, Hofheim/Taunus, Germany, Federal Republic of

PATENT ASSIGNEE(S): Glycorex AB, Lund, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6037467		20000314
APPLICATION INFO.:	US 1997-898464		19970724 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-563020, filed on 27 Nov 1995, now abandoned which is a division of Ser. No. US 1993-165805, filed on 13 Dec 1993, now patented, Pat. No. US 5470843		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1992-4241829	19921211
	DE 1993-4326777	19930810
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Fonda, Kathleen K.	
LEGAL REPRESENTATIVE:	Foley & Lardner	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2759	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Carbohydrate-containing polymers which can have an HLB* of from about 10 to about 20 are disclosed. The compounds comprise a hydrophilic polymer portion, a carbohydrate portion comprising from 1 to about 20 naturally occurring, identical or different, monosaccharide units, at least one

bifunctional spacer coupling the carbohydrate portion to the hydrophilic polymer portion, and a potentiator moiety. The potentiator moiety can be is a crosslinking moiety located within the hydrophilic polymer or a hydrophobic, hydrophilic or ionic moiety. Processes for the preparation and use of such polymers are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

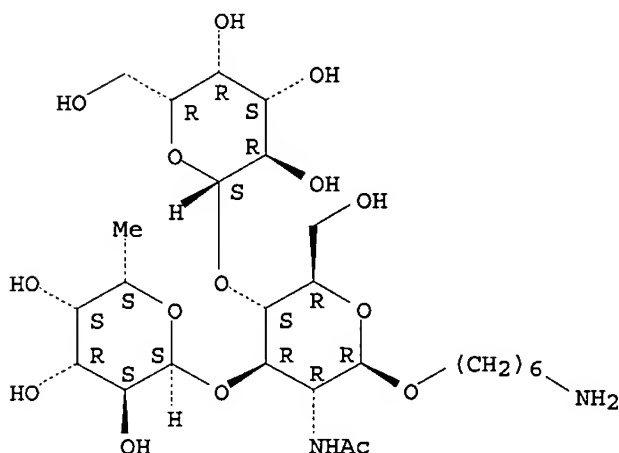
IT 167475-59-4P

(prepn. of, as intermediate for carbohydrate receptor blocker)

RN 167475-59-4 USPATFULL

CN .beta.-D-Glucopyranoside, 6-aminohexyl O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O- [.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L9 ANSWER 14 OF 19 USPATFULL

ACCESSION NUMBER: 2000:27565 USPATFULL

TITLE: Methods for generating cytotoxic T cells and treatment of diseases thereby

INVENTOR(S): Jondal, Mikael, Stockholm, Sweden

PATENT ASSIGNEE(S): Astra Aktiebolag, Sodertalje, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6033669		20000307
APPLICATION INFO.:	US 1995-442378		19950516 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-54860, filed on 27 Apr 1993, now patented, Pat. No. US 5807559, issued on 15 Sep 1998		

	NUMBER	DATE
PRIORITY INFORMATION:	SE 1992-1338	19920428
	SE 1992-2553	19920907
	SE 1992-3897	19921223
	SE 1993-1141	19930406

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Mosher, Mary E.
ASSISTANT EXAMINER: Salimi, Ali R.
LEGAL REPRESENTATIVE: White & Case LLP
NUMBER OF CLAIMS: 22

EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 32 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 2484
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates a novel class of biologically active compounds, to processes for their production and to their use in therapy. More particularly the invention provides immunogenic conjugates useful for generating T cell immunity against tumor-associated carbohydrate structures or against carbohydrate structures expressed on infectious agents and/or infected host cells. The said immunogenic conjugate comprises, (i) a peptide component capable of binding a MHC class I molecule; and (ii) a carbohydrate component having the immunogenic specificity of said carbohydrate structure.

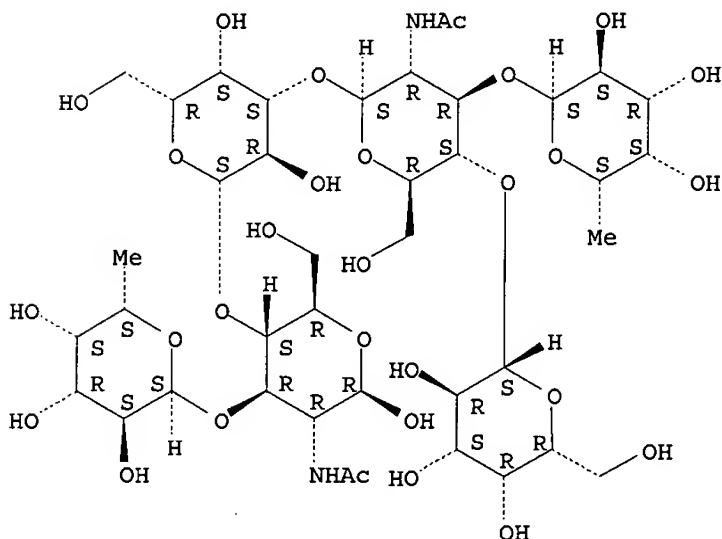
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 152013-95-1D, conjugates with MHC class I-binding peptide
152013-96-2D, conjugates with MHC class I-binding peptide
(for generating T cell immunity to cancers)

RN 152013-95-1 USPATFULL

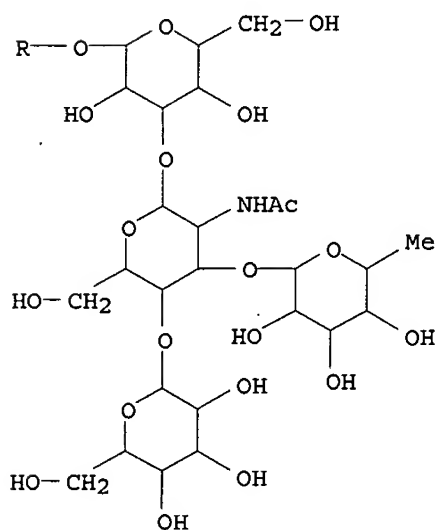
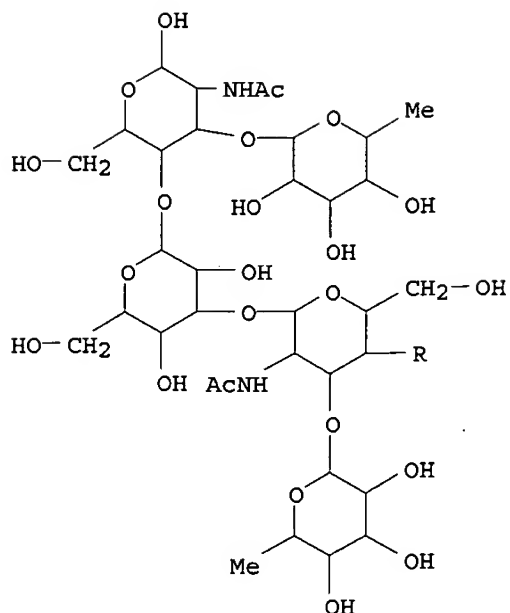
CN .beta.-D-Glucopyranose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O- [.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 152013-96-2 USPATFULL

CN .beta.-D-Glucopyranose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O- [.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

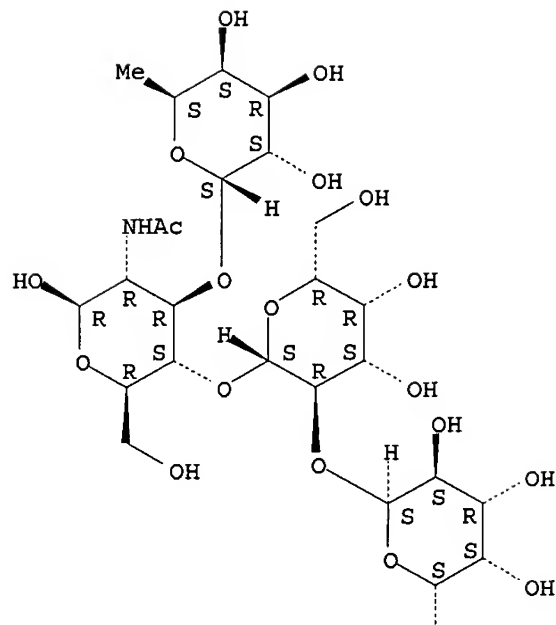


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IT  81275-98-1D, conjugates with MHC class I-binding peptide
      (for generating T cell immunity to carbohydrates assocd. with HIV)
RN  81275-98-1  USPATFULL
CN  .beta.-D-Glucopyranose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-
      O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)-.beta.-D-
      galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX
      NAME)

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Absolute stereochemistry.



Me

L9 ANSWER 15 OF 19 USPATFULL
 ACCESSION NUMBER: 1999:43446 USPATFULL
 TITLE: Oligosaccharides and glycoproteins produced in milk of transgenic non-human mammals
 INVENTOR(S): Prieto, Pedro Antonio, Columbus, OH, United States
 Smith, David Fletcher, Athens, GA, United States
 Cummings, Richard Dale, Edmond, OK, United States
 Kopchick, John Joseph, Athens, OH, United States
 Mukerji, Pradip, Gahanna, OH, United States
 Moremen, Kelley Wilson, Athens, GA, United States
 Pierce, James Michael, Athens, GA, United States
 PATENT ASSIGNEE(S): Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5891698		19990406
APPLICATION INFO.:	US 1995-433271		19950502 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-209122, filed on 9 Mar 1994		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Crouch, Deborah		
LEGAL REPRESENTATIVE:	Becker, Cheryl L.		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 12 Drawing Page(s)		
LINE COUNT:	1853		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to humanized milk. The milk is produced by a non-human transgenic mammal wherein the genome of said transgenic non-human mammal contains at least one heterologous gene encoding for a human catalytic entity and wherein the catalytic entity produces oligosaccharides and glycoconjugates that are present in the milk of said transgenic non-human mammal. An especially useful catalytic entity is human glycosyltransferases which produce oligosaccharides and glyconjugates. Specifically exemplified, is the production of 2'-fucosyl-lactose in the milk of transgenic mice which contain and express a transgene encoding .alpha.-1,2-fucosyltransferase operatively linked to a mammary gland specific promoter. A method of obtaining humanized milk is disclosed. The method comprises the steps of (a) inserting into the genome of a non-human mammal a heterologous gene encoding the production of a human catalytic entity wherein said catalytic entity produces a secondary gene product in the milk of said non-human mammal; and (b) milking said non-human mammal. The humanized milk may be used in the preparation of an enteral nutritional product useful in the nutritive maintenance of an animal.

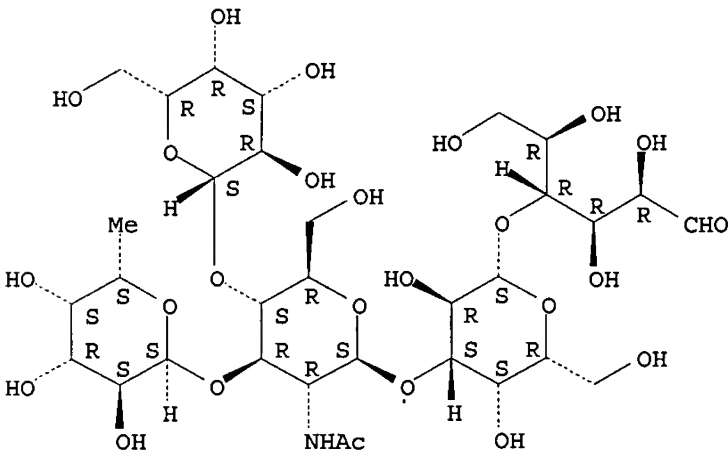
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 25541-09-7P, Lacto-N-fucopentaose III
(humanized milk prodn. by transgenic mammal contg. human gene for
oligosaccharide/glycoconjugate-forming enzyme and humanized milk use
for enteral nutrition)

RN 25541-09-7 USPATFULL

CN D-Glucose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L9 ANSWER 16 OF 19 USPATFULL

ACCESSION NUMBER: 1998:111651 USPATFULL

TITLE: Compositions for generating T cell immunity against carbohydrate structures

INVENTOR(S) : Jondal, Mikael, Stockholm, Sweden

PATENT ASSIGNEE(S): Astra Aktiebolag, Sodertalje, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5807559		19980915

	NUMBER	DATE
PRIORITY INFORMATION:	SE 1992-1338	19920428
	SE 1992-2553	19920907
	SE 1992-3897	19921223
	SE 1993-1141	19930406
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Minnifield, Nita	
LEGAL REPRESENTATIVE:	White & Case L.L.P.	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	32 Drawing Figure(s); 13 Drawing Page(s)	
LINE COUNT:	2426	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a novel class of immunologically active compounds, to processes for their production and to their use in therapy. In particular, the invention provides immunogenic peptide-carbohydrate conjugates useful for generating T cell immunity against tumor-associated carbohydrate structures, or against carbohydrate structures expressed on infectious agents and/or infected host cells. The immunogenic conjugate comprises a peptide component capable of binding a MHC class I molecule and a carbohydrate component having the same immunogenic characteristics of the carbohydrate structure on the tumor cell, infectious agent or the infected cells.

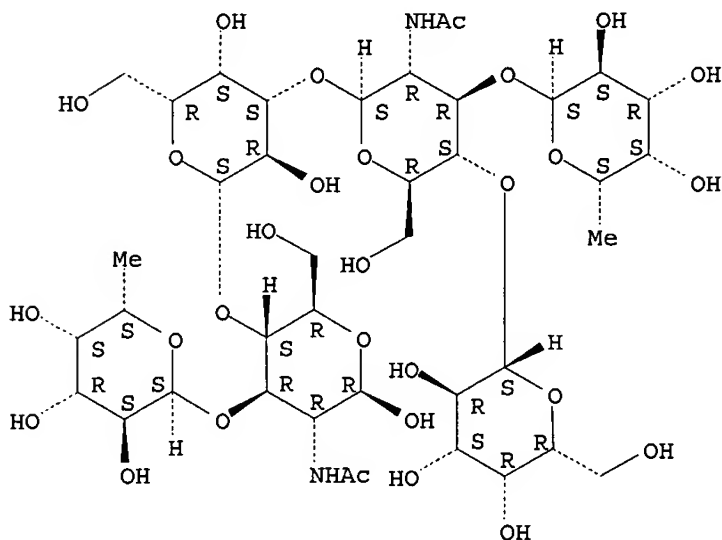
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 152013-95-1D, conjugates with MHC class I-binding peptide
152013-96-2D, conjugates with MHC class I-binding peptide
(for generating T cell immunity to cancers)

RN 152013-95-1 USPTFULL

CN .beta.-D-Glucopyranose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O- [.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

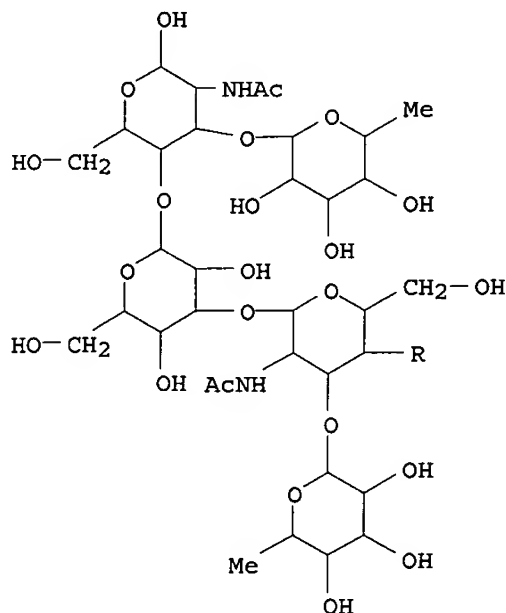
Absolute stereochemistry.



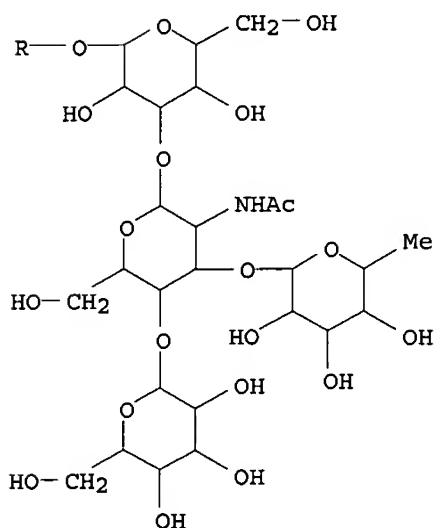
RN 152013-96-2 USPTFULL

CN .beta.-D-Glucopyranose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-
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.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-
(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-
(1.fwdarw.3)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-
deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-.beta.-D-galactopyranosyl-
(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

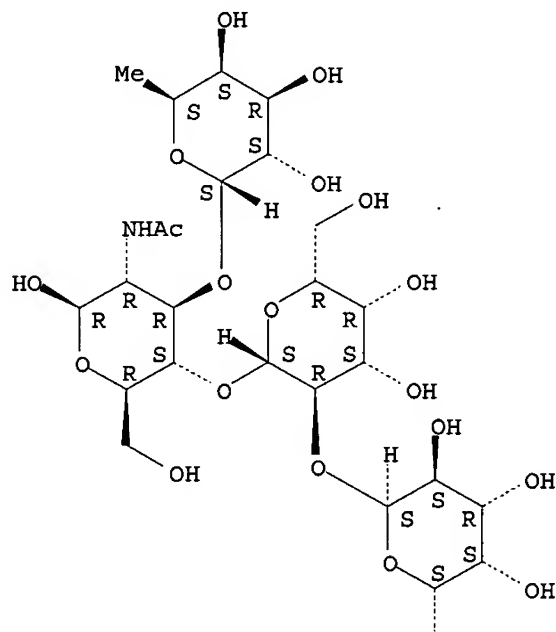


IT 81275-98-1D, conjugates with MHC class I-binding peptide
(for generating T cell immunity to carbohydrates assocd. with HIV)
RN 81275-98-1 USPATFULL

CN .beta.-D-Glucopyranose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-
O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.2)-.beta.-D-
galactopyranosyl-(1.fwdarw.4)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

Me

L9 ANSWER 17 OF 19 USPATFULL

ACCESSION NUMBER: 1998:51259 USPATFULL

TITLE: Transgenic non-human mammal milk comprising
2'-fucosyl-lactose

INVENTOR(S): Prieto, Pedro Antonio, Columbus, OH, United States
Smith, David Fletcher, Athens, GA, United States
Cummings, Richard Dale, Edmond, OK, United States
Kopchick, John Joseph, Athens, OH, United States
Mukerji, Pradip, Gahanna, OH, United States
Moremen, Kelley Wilson, Athens, GA, United States
Pierce, James Michael, Athens, GA, United States

PATENT ASSIGNEE(S): Abbott Laboratories, Abbott Park, IL, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5750176		19980512
APPLICATION INFO.:	US 1994-208889		19940309 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Crouch, Deborah		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(in humanized milk; humanizing milk by mammary gland-specific expression of human genes for oligosaccharide biosynthetic enzymes)

CN D-Glucose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-(9CI) (CA INDEX NAME)

The chemical structure shows a complex oligosaccharide composed of several sugar units linked by glycosidic bonds. The structure includes a central glucose unit (bottom middle) with an NHAc group at C2, linked to a mannose unit (top middle) with a Me group at C6. To the left is a glucose unit with a Me group at C6, and to the right is a glucose unit with a CHO group at C1. Various other sugar units are present, including a galactose unit (top left) and a glucose unit (bottom right). Stereochemical assignments (R and S) are provided for many of the chiral centers throughout the molecule.

ACCESSION NUMBER: 95:105833 USPATFULL

INVENTOR(S): Stahl, Wilhelm, Frankfurt am Main, Germany, Federal
 Republic of

Ahlers, Michael, Mainz, Germany, Federal Republic of
 Walch, Axel, Frankfurt am Main, Germany, Federal
 Republic of
 Bartnik, Eckhart, Wiesbaden, Germany, Federal Republic
 of
 Kretzschmar, Gerhard, Eschborn, Germany, Federal
 Republic of
 Grabley, Susanne, Koenigstein, Germany, Federal
 Republic of
 Schleyerbach, Rudolf, Hofheim/Taunus, Germany, Federal
 Republic of
 PATENT ASSIGNEE(S): Hoechst Aktiengesellschaft, Germany, Federal Republic
 of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5470843		19951128
APPLICATION INFO.:	US 1993-165805		19931213 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1992-4241829	19921211
	DE 1993-4326777	19930810
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Robinson, Douglas W.	
ASSISTANT EXAMINER:	Fonda, Kathleen Kahler	
LEGAL REPRESENTATIVE:	Foley & Lardner	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2689	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Carbohydrate-containing polymers which can have an HLB* of from about 10
 to about 20 are disclosed. The compounds comprise a hydrophilic polymer
 portion, a carbohydrate portion comprising from 1 to about 20 naturally
 occurring, identical or different, monosaccharide units, at least one
 bifunctional spacer coupling the carbohydrate portion to the hydrophilic
 polymer portion, and a potentiator moiety. The potentiator moiety can be
 is a crosslinking moiety located within the hydrophilic polymer or a
 hydrophobic, hydrophilic or ionic moiety. Processes for the preparation
 and use of such polymers are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

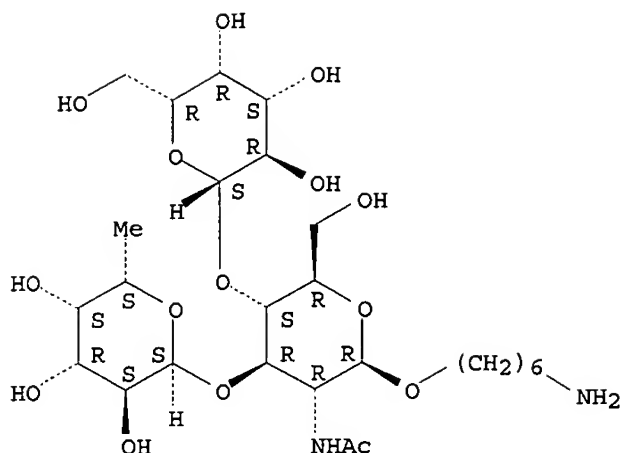
IT 167475-59-4P

(prepn. of, as intermediate for carbohydrate receptor blocker)

RN 167475-59-4 USPATFULL

CN .beta.-D-Glucopyranoside, 6-aminohexyl O-6-deoxy-.alpha.-L-
 galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-galactopyranosyl-(1.fwdarw.4)]-
 2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L9 ANSWER 19 OF 19 USPATFULL

ACCESSION NUMBER: 95:88557 USPATFULL

TITLE: Polysaccharide, its applications, its production by fermentation and the pseudomonas strain which produces it

INVENTOR(S): Fontaine, Thierry, La Barre De Semilly, France
Fournet, Bernard, Villeneuve D'Asq, France
Planard, Marie France, Carentan, France

PATENT ASSIGNEE(S): Elf Sanofi, Paris, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5455343		19951003
APPLICATION INFO.:	US 1992-949263		19920924 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1991-11823	19910925
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Robinson, Douglas W.	
ASSISTANT EXAMINER:	Fonda, Kathleen Kahler	
LEGAL REPRESENTATIVE:	Jacobson, Price, Holman & Stern	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	346	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This polysaccharide consists of repeating units which are composed of a backbone, comprising 2 radicals of D-mannose, 2 of D-glucose, 1 of D-galactose, 1 of D-glucuronic acid, 1 of D-xylose, 1 of L-lyxose and 1 of L-fucose, on which pyruvic acid groups may be grafted and of which certain of the saccharide hydroxyl groups are esterified as acetate. It can be employed as a viscosity agent for thickening and gelling.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 150731-84-3P

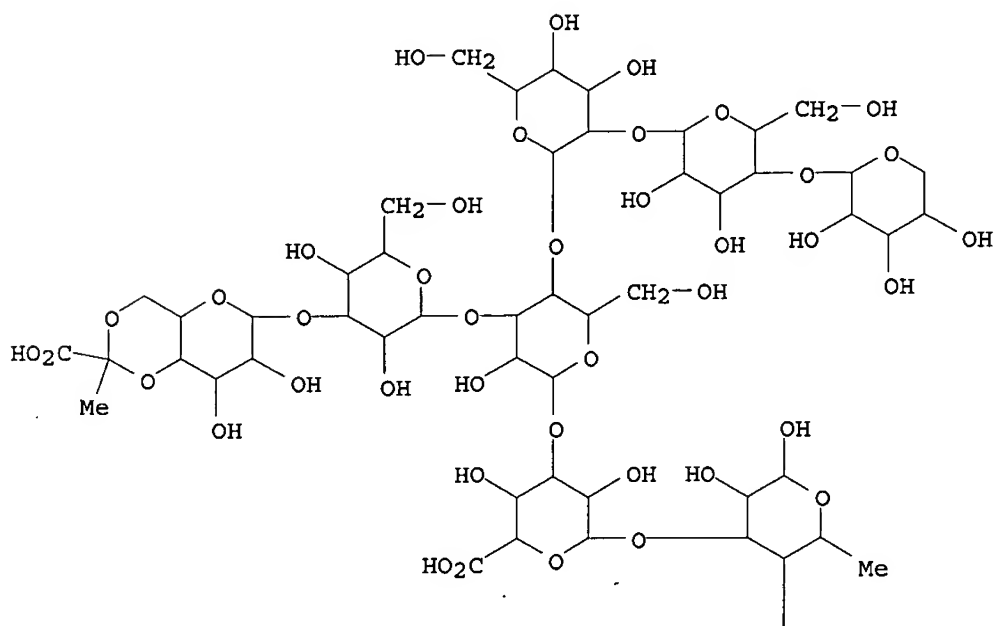
(manuf. of, as gelation and thickening agents, by Pseudomonas fermn.)

RN 150731-84-3 USPATFULL

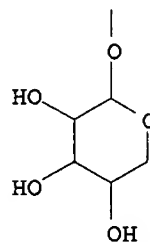
CN .alpha.-L-Galactopyranose, O-4,6-O-(1-carboxyethylidene)-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-[O-.beta.-D-xylopyranosyl-(1.fwdarw.4)-O-.beta.-D-mannopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.4)]-O-.beta.-D-

glucopyranosyl-(1.fwdarw.3)-O-.alpha.-D-glucopyranuronosyl-(1.fwdarw.3)-
O-[.beta.-D-lyxopyranosyl-(1.fwdarw.4)]-6-deoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L13 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:247347 CAPLUS

DOCUMENT NUMBER: 134:252586

TITLE: Preparation of acetamidodeoxy fucosylated oligosaccharides via enzymic glycosidation reaction

INVENTOR(S): Natunen, Jari

PATENT ASSIGNEE(S): Carbion Oy, Finland

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

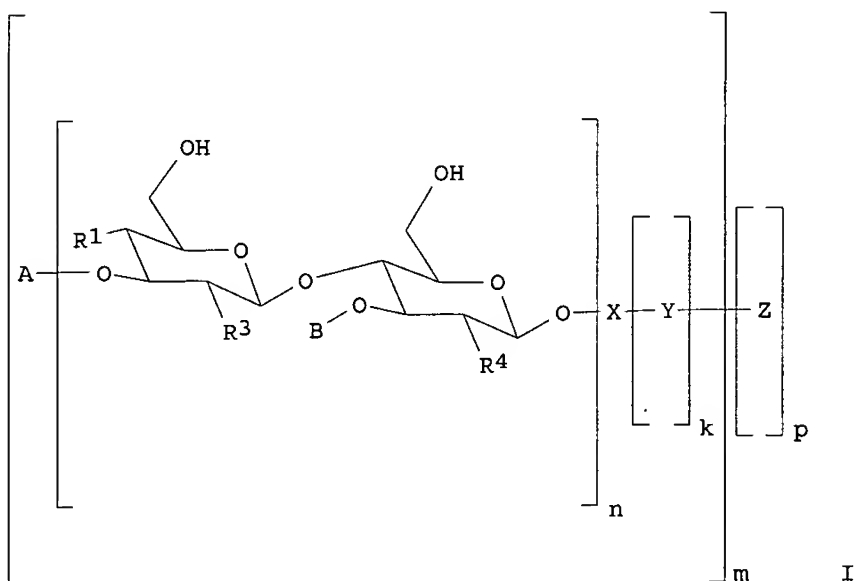
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001023398	A1	20010405	WO 2000-FI803	20000921
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GW, ML, MR, NE, SN, TD, TG				
FI 9902070	A	20010328	FI 1999-2070	19990928
EP 1228079	A1	20020807	EP 2000-960731	20000921
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003510330	T2	20030318	JP 2001-526548	20000921
PRIORITY APPLN. INFO.: FI 1999-2070 A 19990928				
WO 2000-FI803 W 20000921				

OTHER SOURCE(S): CASREACT 134:252586

GI



AB The present invention relates to a process for the enzymic glycosidation in prepn. of oligosaccharides or oligosaccharide contg. compds., esp. N-acetyl-chitooligosaccharides having a fucosylated monosaccharide I, wherein A is H or a glycosidically .beta.1-3 linked D-glucopyranosyl residue, R1 is OH, R2 is H and R3 is OH or acylamido, -NH-acyl or R1 is H, R2 is OH and R3 is acetamido -NHCOCH3, B is H, or an .alpha.-L-fucosyl or an .alpha.-L-fucosyl analog, and R4 is OH or acetamido -NHCOCH3, n is 1 to 100, with the proviso that there is always at least one .alpha.-fucosyl or .alpha.-fucosyl analogs group present in the mol., p and k are 0 and m is 1, in which case X is H, an aglycon residue or a monosaccharide selected from the group consisting of Glc, GlcNAc, Gal or GalNAc, optionally in reduced form, or oligosaccharide contg. one or more of said monosaccharide units linked to saccharide X, when n is 1, or p is 1, k is 0 or 1 and 1 < m < 1000, in which case X is a straight bond, or a mono- or oligosaccharide as defined under, Y is a spacer or linking group capable of linking the saccharide or X to Z, and Z is a mono- or polyvalent carrier mol. The invention also relates to novel oligosaccharides or oligosaccharide contg. compds., esp. N-acetyl-chitooligosaccharides, which are fucosylated and optionally covalently bound to a carrier mol. Thus, human fucosyltransferase V-catalyzed glycosidation of N-acetyl-chitotriose and GDP-fucose gave the corresponding fucosylated N-acetyl-chitotriose in 67% yield.

IT 331638-57-4P 331638-62-1P

RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

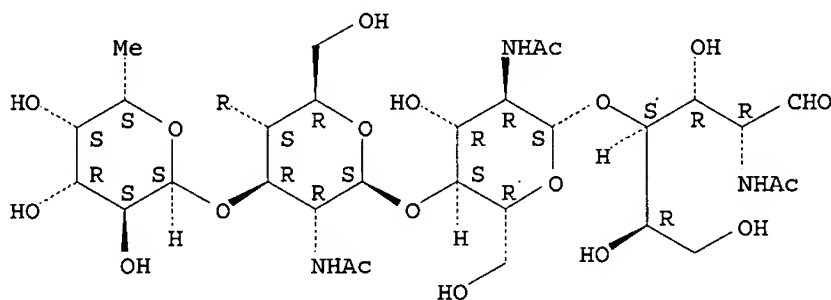
(prepn. of acetamidodeoxy fucosylated oligosaccharides via enzymic glycosidation reaction)

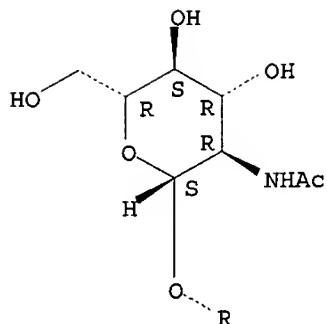
RN 331638-57-4 CAPLUS

CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

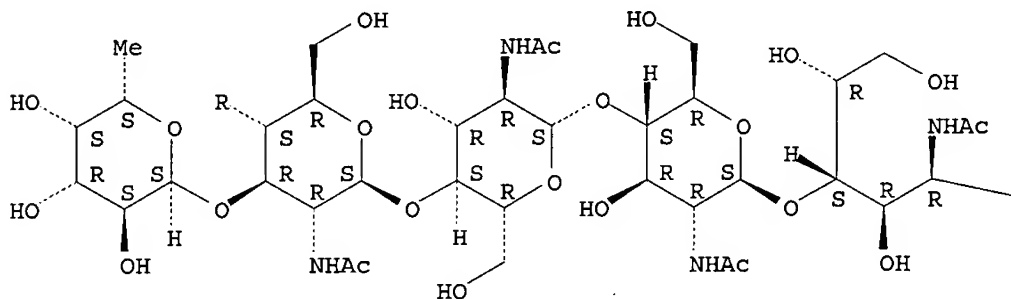




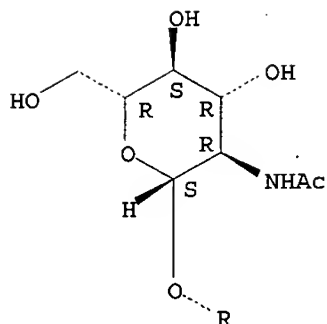
RN 331638-62-1 CAPLUS

CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-
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.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-
glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



—CHO



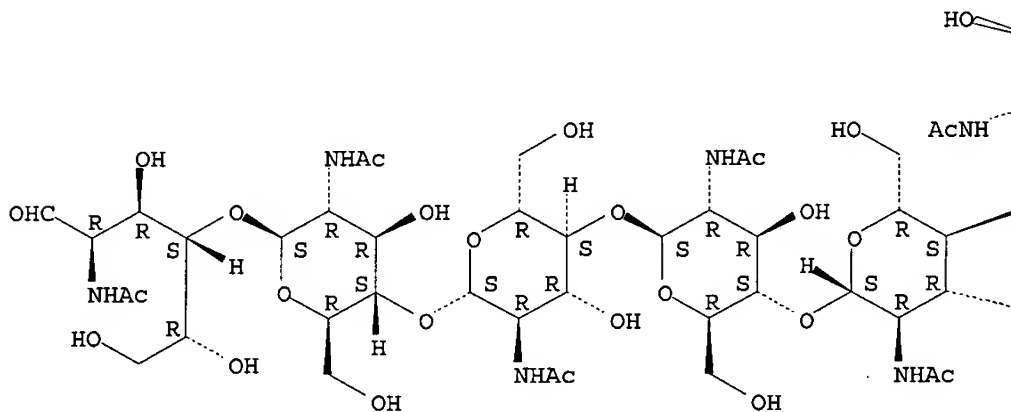
IT 331638-60-9P

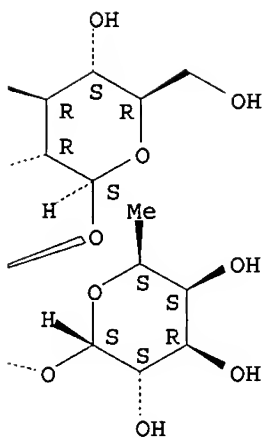
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of acetamidodeoxy fucosylated oligosaccharides via enzymic glycosidation reaction)

RN 331638-60-9 CAPLUS

CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:247347 CAPLUS

DOCUMENT NUMBER: 134:252586

TITLE: Preparation of acetamidodeoxy fucosylated oligosaccharides via enzymic glycosidation reaction

INVENTOR(S): Natunen, Jari

PATENT ASSIGNEE(S): Carbion Oy, Finland

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

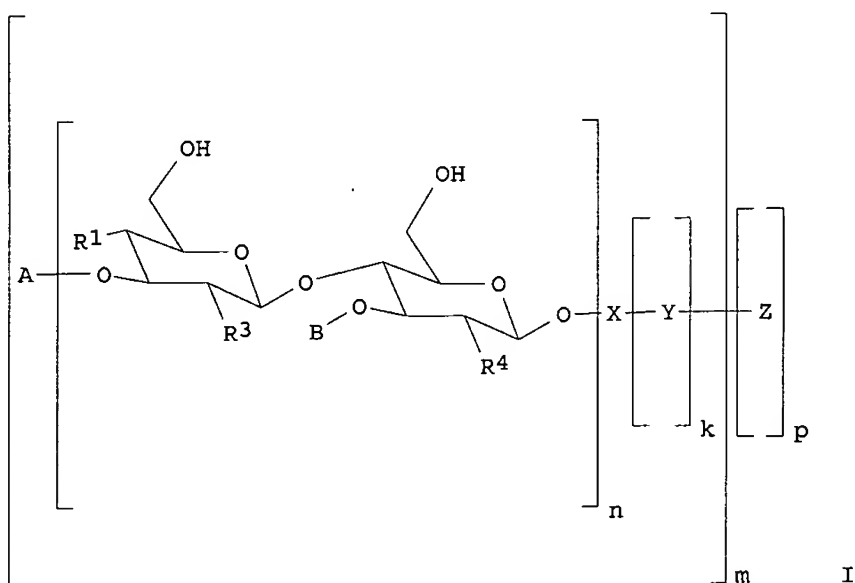
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001023398	A1	20010405	WO 2000-FI803	20000921
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GW, ML, MR, NE, SN, TD, TG				
FI 9902070	A	20010328	FI 1999-2070	19990928
EP 1228079	A1	20020807	EP 2000-960731	20000921
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003510330	T2	20030318	JP 2001-526548	20000921
PRIORITY APPLN. INFO.: FI 1999-2070 A 19990928				
WO 2000-FI803 W 20000921				

OTHER SOURCE(S): CASREACT 134:252586

GI



AB The present invention relates to a process for the enzymic glycosidation in prepn. of oligosaccharides or oligosaccharide contg. compds., esp. N-acetyl-chitooligosaccharides having a fucosylated monosaccharide I, wherein A is H or a glycosidically .beta.1-3 linked D-glucopyranosyl residue, R1 is OH, R2 is H and R3 is OH or acylamido, -NH-acyl or R1 is H, R2 is OH and R3 is acetamido -NHCOCH3, B is H, or an .alpha.-L-fucosyl or an .alpha.-L-fucosyl analog, and R4 is OH or acetamido -NHCOCH3, n is 1 to 100, with the proviso that there is always at least one .alpha.-fucosyl or .alpha.-fucosyl analogs group present in the mol., p and k are 0 and m is 1, in which case X is H, an aglycon residue or a monosaccharide selected from the group consisting of Glc, GlcNAc, Gal or GalNAc, optionally in reduced form, or oligosaccharide contg. one or more of said monosaccharide units linked to saccharide X, when n is 1, or p is 1, k is 0 or 1 and 1 < m < 1000, in which case X is a straight bond, or a mono- or oligosaccharide as defined under, Y is a spacer or linking group capable of linking the saccharide or X to Z, and Z is a mono- or polyvalent carrier mol. The invention also relates to novel oligosaccharides or oligosaccharide contg. compds., esp. N-acetyl-chitooligosaccharides, which are fucosylated and optionally covalently bound to a carrier mol. Thus, human fucosyltransferase V-catalyzed glycosidation of N-acetyl-chitotriose and GDP-fucose gave the corresponding fucosylated N-acetyl-chitotriose in 67% yield.

IT 331638-57-4P 331638-62-1P

RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

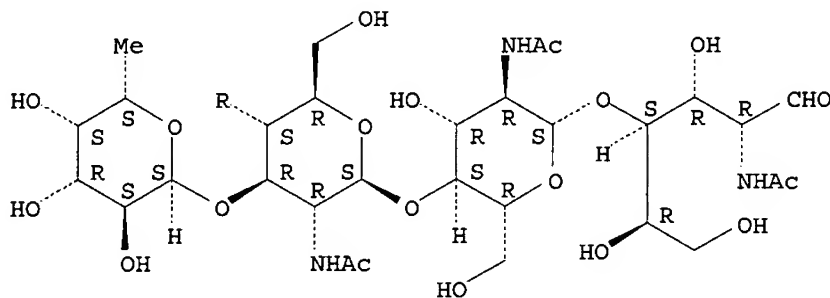
(prepn. of acetamidodeoxy fucosylated oligosaccharides via enzymic glycosidation reaction)

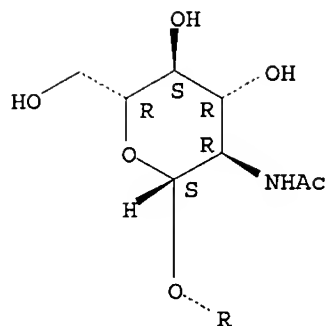
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CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

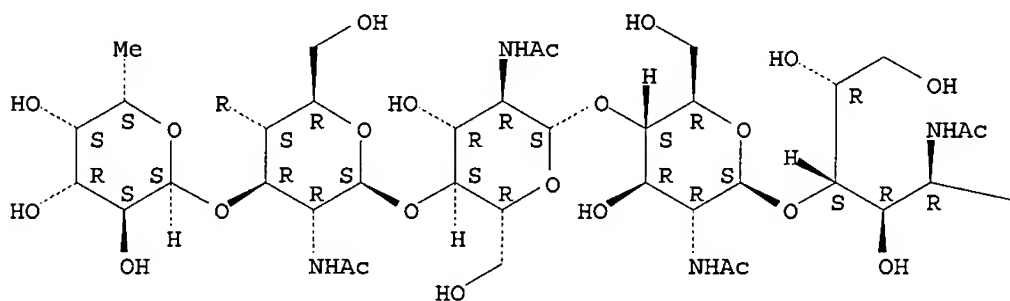




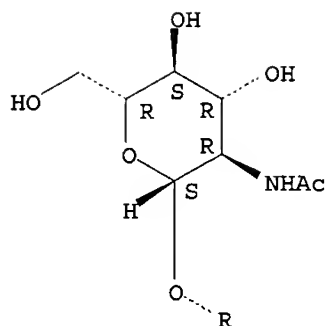
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O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-
deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-
.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-
glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.(9CI) (CA INDEX
NAME)

Absolute stereochemistry.



—CHO



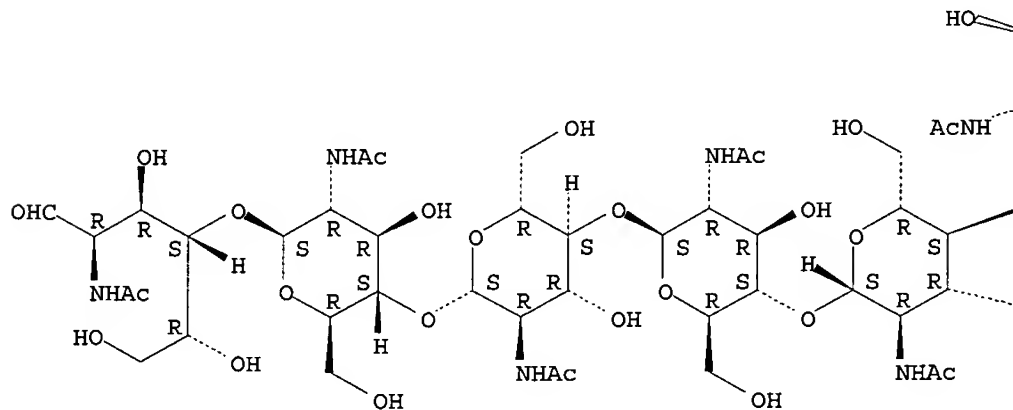
IT 331638-60-9P

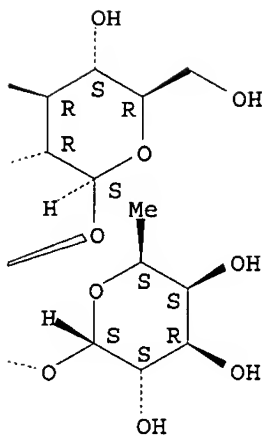
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of acetamidodeoxy fucosylated oligosaccharides via enzymic glycosidation reaction)

RN 331638-60-9 CAPLUS

CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT